

ABSTRACT OF THE DISCLOSURE

In a method of designing a circuit layout of a semiconductor integrated circuit, a logic function of the integrated circuit is first designed. Then, a pattern layout of the integrated circuit is designed. The designed pattern layout includes a logic cell area and an open area. Next, a spare underground cell is inserted into the open area. The spare underground cell includes a functional element. A mask layout of the integrated circuit is then designed. The designed mask layout includes the logic cell and the spare underground cell.